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MILK RIVER WATERSHED NEWS

INSIDE This Issue

Water Supply Better Than Last Year, But Still Not Good

By Scott Guenthner, Bureau of Reclamation

There is good news and bad news as water users' turn their attention to water supply. On the bright side, snow pack in the mountains of Glacier National Park, which fills Lake Sherburne, is about 120 percent of normal for this time of the year. This is more than twice the amount received at this time last year (figure 1). Runoff, however, into Lake Sherburne and in the St. Mary River drainage are expected to be slightly below normal to near normal. According the Natural Resource Conservation Service, the April through July inflow to Lake Sherburne is expected to be 89 percent of normal and streamflow of the St. Mary River is expected to be 88 percent of normal.

On the not so bright side, storage in Fresno and Nelson reservoirs is extremely low. Fresno storage was about 3,700 acre-feet at the end of March—over 38 feet

(Continued on Page 2)

Entire State Designated As Drought Disaster Area

By Jesse Aber, DNRC, Helena

On March 28, U. S. Secretary of Agriculture Ann Veneman announced a statewide Natural Disaster Designation (NDD) for Montana. The Secretary made the announcement as a highlight of her visits to Missoula and Bozeman. This is the third consecutive year that the U. S. Department of Agriculture (USDA) has agreed to designate the entire state as a natural disaster area due to drought.

This year's statewide NDD was granted two months earlier than last year. Governor Judy Martz visited Secretary Veneman in Washington, D.C. several weeks ago and impressed upon her the many impacts from the continuing drought on Montana's economy

(Continued on Page 3)

(Water Supply Continued from Page 1)

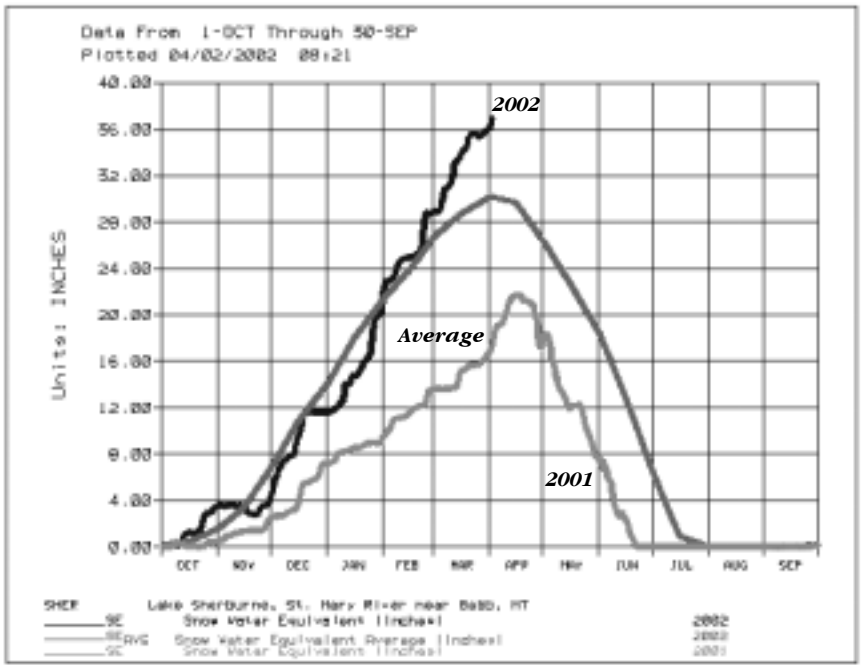
below the normal full pool (elevation 2536.36') and this represents only 4 percent of capacity. Nelson Reservoir is only slightly better with about 10,700 acre-feet of usable storage. Unlike the mountain snowpack, snow on the plains was absent for most of the winter, except for some accumulation during March. The April through July runoff into Fresno Reservoir is projected to be about 35 percent of normal. Many residents recognize that much of the runoff comes during March and April as a result of low land snowmelt. There was no snowmelt runoff into Fresno Reservoir in March and with so little snow on the plains, below normal runoff is expected in April.

Because of low storage in Fresno and Nelson Reservoirs, the Bureau of Reclamation had planned to transfer water from the St. Mary River to the Milk River beginning on March 4th. However, above average snowfall in the mountains and subzero temperatures, down to -30°F, have prevented start-up of the St. Mary Canal as planned. Although some water was diverted during the week of March 18th, significant water was not diverted until the first week of April. As a result water levels behind Fresno Dam continued to decline.

Fresno Reservoir had the lowest end of March storage content on record (figure 2). The previous record low storage for the spring months was a few inches above the current storage level (elevation 2536.56') and occurred on March 9, 1989. The all-time record low storage level was on September 9, 1961, which was about four feet lower than the present level at elevation 2532.40'. Storage in Fresno Reservoir will not increase unless runoff occurs upstream or until water diverted by the St. Mary Canal reaches Fresno Reservoir between April 12 and April 15. There is sufficient storage in Fresno Reservoir to continue the present delivery schedule for about 40 days.

Irrigators, municipalities, and rural water users can expect shortages this year unless above average spring and early summer rains occur. The water supply for irrigators will be reduced during May, similar to the supply they received in May and early June of 2001. Last year, most irrigators were only able to irrigate about one-third of their acres. Some additional irrigation supply may be available during June and early July, but the amount is dependent upon timing and volume of actual runoff, spring and summer rains, and successful delivery of irrigation water during May.

FIGURE 1



Snowpack water upstream of Sherburne reservoir in Glacier National Park is over 36 inches in March compared to 16 inches in March of 2001.

FIGURE 2

Terri Petersen of the DNRC Havre Regional Office stands atop the intake structure of Fresno Reservoir on March 27, 2002. The spillway crest is in the background under the bridge and the storage content was 3,877 acre-feet at the end of March.

(Entire State Designated Continued from Page 1)

and its people. "It is highly unusual she (Secretary Veneman) would do this so early," said Ralph Peck, Director of Montana Department of Agriculture. "I think the continuation of the drought makes it critical."

The NDD provides a number of benefits to drought-impacted agricultural producers and the businesses that support agriculture. First, the NDD opens the Farm Service Agency's (FSA) low-interest emergency loan program. For the first time in 15 years, new rules will allow affected producers to apply for loans for up to 100 percent of the documented production losses. Prior to this, producers were limited to applying for loans of up to 80 percent of documented losses from drought. Affected producers will have up to eight months to apply for loans to cover the losses. According to the Secretary, the program's new rules make it easier and quicker for farmers who suffered losses from the drought to get federal loans. Loan approval will be based on the extent of a farmer's losses and the ability to repay the loans. Applications to the Emergency Loan Program will now be processed by local FSA officials.

The Milk River north of Havre. Photo Courtesy of Ed Diemert & Hi-Line County Commisions.

Second, the NDD triggers Internal Revenue Service income tax allowances for deferring capital gains tax, for example, on the forced early sale of livestock due to drought conditions causing problems with low feed, forage, or water. The gains can be deferred to the next year and perhaps longer if the drought is prolonged and a subsequent NDD is granted.

Third, the NDD activates the Small Business Administration (SBA) low-interest emergency loan program for agricultural businesses suffering from loss of normal business volume from impacts that are related to drought. It should be noted that businesses impacted by fire or indirectly affected by drought are not often eligible for the SBA program. Interested parties can call the SBA at 800-827-5722 for more information.

Finally, the most significant benefit that the NDD may provide for 2002 is adding momentum to the passage of the disaster payment amendment to the Farm Bill, now being debated in Congress. The Montana Governor's Drought Advisory Committee recently stressed to Congress the importance of the $2.4 billion natural disaster assistance to Montana farmers, ranchers, tribes and agri-businesses. For weeks, Montana's entire Congressional Delegation has been working hard to make the case for the disaster payment amendment to the Farm Bill.

With the statewide NDD announcement, the presumption is that a Montana county is most likely in drought, and the time-consuming standard petition process with its multi-level review, is not required. Producers that apply will most likely get low-interest loans as long as the losses are documented and can be confirmed on a case-by-case basis by local FSA officials. And they cannot borrow elsewhere. For now, however, most producers are not interested in borrowing more money. They are hoping that will Congress approve the disaster payment amendment on the Farm Bill.

A Bureau of Reclamation Employee breaking ice to help open the St. Mary Canal.

Alberta Irrigators Ration and Sell Water

By Stan Klassen, Executive Director, Alberta Irrigation Project Association

Alberta irrigators who rely on water from the St. Mary, Belly and Waterton rivers led by example through one of the driest seasons over the past 100 years.

At the end of the 2000 irrigation season, water managers recognized the folly of depending on winter snow and spring rains to wash their troubles away. They needed a plan.

Fortunately, a forum already existed to start planning for the continuing drought. St. Mary River Irrigation District (SMRID), Raymond Irrigation District (RID) and Taber Irrigation District (TID) established a Main Canal committee that usually dealt with the operation of their shared canal. This committee began inviting other stakeholders to the table in November 2000.

The high demand during the 2000 irrigation season, poor snowpack from winter 1999-2000 and no significant rain for over two years, left reservoirs depleted and soil moisture content very low. They knew that Alberta Environment, the Provincial agency charged with administering water rights, would have to enforce water use according to water license priority (water rights) unless they agreed to share the available water supplies as some licensed water users would go without water for the season.

"Rather than do that, we sat down with everybody and discussed what we could expect," said Myles Kasun, SMRID operations manager. This lead to the formation of the Main Canal Advisory Committee (MCAC). It is a large committee that includes representatives from SMRID, TID, RID, United ID, Aetna ID, Magrath ID, Levitt ID, Alberta Agriculture, Alberta Environment, the Blood Tribe, crop insurance companies, private irrigators and municipal governments.

At first, the group discussed how to get through the season with six inches of water per irrigated acre. They were able to increase their predictions to eight inches in May and finally to 10 inches in early June when snowfall increased the reservoirs a little. The committee also established an agreement for the 2001 season allowing irrigators within SMRID, TID and RID to sell water to each other.

Ten inches is not enough for specialty crops such as potatoes, corn and alfalfa. The ration of 10 inches per acre forced many farmers to modify their operations for the season. "Those that had the specialty crops probably didn't put water on the grain and on other crops unless they purchased water allocations from other farmers," noted Keith Francis, TID chair. Although the districts retained the final say on whether allocation trades went forward, they did not get involved in the financial arrangements between water users. The districts considered the operational feasibility of water trades to ensure they could supply water to the buyer and that the correct person could use the traded allocation.

"However, we did hear indirectly that water traded for as much as $200 per acre/foot in some cases," mused Stan Klassen, Alberta Irrigation Projects Association (AIPA) Executive Director.

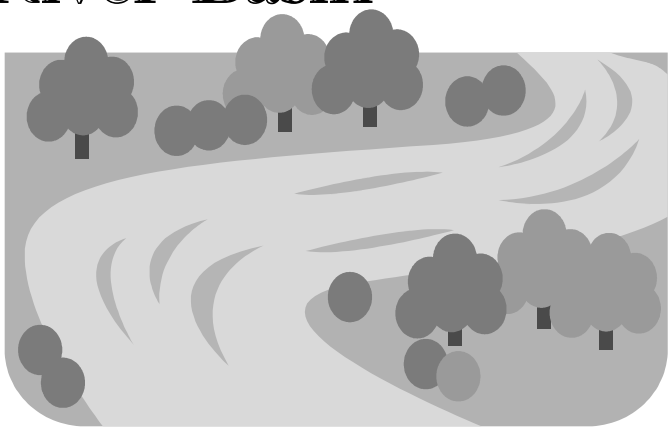
The fact that everyone had time to figure out what they could or could not accomplish with 10 inches of water went a long ways to alleviate unnecessary hardship. It allowed farmers to decide whether to move water from one parcel to another or refrain from irrigating their grain to save water for corn, potatoes or sugar beets. To ration water to 10 inches per acre is to ask irrigators to use 60 percent less water than they would use in a normal year. Therefore, municipal governments also aimed to limit urban consumption to 60 percent.

"Our citizens understand the farming community and they did everything possible to save as much water as they could to assist the farmers," said Harley Phillips, Taber Mayor. Even secondary industry played a role in water conservation. Phillips explained that Hostess Frito-Lay recently upgraded their plant and put in water and energy conservation measures. Roger's Sugar plant went through its system and found places to save on water and Lamb Weston bought water rights for its processing and worked with some local farmers to recycle the treated water back onto fields.

This example of a greater community pulling together during a time of hardship reinforces the strength of spirit that Albertans often exhibit. They met the drought head-on and came out better for it. "It taught us the importance of water conservation, water management, better habits and fine tuning our system," Zobell said. "We gained some good expertise through this that will benefit all of us."

Using St. Mary River Water in the Milk River Basin

By Mike Dailey, DNRC, Glasgow



Will Rogers once commented that, if you didn't irrigate the Rio Grande, it wouldn't flow. He was referring to what geographers call an "exotic stream" (one that shrinks as it goes downstream), and the dams built to meet water demands.

Mr. Rogers had a marvelous sense of humor, but his statement in the literal sense holds quite true of the Milk River. Many parallels can be drawn between the Milk and Rio Grande rivers, including chronic water shortages, international treaties, endangered species, Tribal water rights and ancient canals.

The Milk River Project isn't quite "ancient", but it is approaching 100 years old, using much of the same infrastructure that was built by the U.S. Reclamation Service (now the Bureau of Reclamation) in the early 1900s. The St. Mary portion of the project was a tremendous undertaking for that time — a trans-basin water supply, powered only by gravity, built specifically for irrigation along the Milk River.

Sherburne Dam, near Many Glacier, captures snowmelt on Swiftcurrent Creek, a tributary to the St. Mary River. Roughly 150,000 acre-feet of water per year is diverted from the river into the St. Mary Canal and transferred over the Hudson Bay/Gulf of Mexico divide to the North Fork of the Milk River. The water is conveyed 216 miles through Alberta, before it re-enters Montana and is regulated at Fresno Dam near Havre. Releases from Fresno Dam provide irrigation water along the Milk River to its mouth near Nashua, 200 miles to the east.

The outdated and deteriorating structures of the Saint Mary Division have recently drawn much attention.

Although the St. Mary portion of the Project was originally built for irrigation, the water is now used for many purposes. As a source of municipal water, it supplies 15,000 people in eight communities, including Havre, Harlem, and Chinook. It benefits fisheries, recreation, tourism, and wildlife. During the drought in 2001, the Milk River water supply was 30 percent of the long-term average, and 97 percent of available water originated in the St. Mary. Only 3 percent of the summer flows were natural, Milk River Basin runoff!

Today's variety of project beneficiaries underscores the socioeconomic importance of St. Mary water in the Milk River Basin. However, operation and maintenance costs are still borne primarily from assessments on the 666 farms irrigating 110,000 project acres, mostly producing hay.

Keeping the St. Mary diversion facilities running from year to year is a challenge. The St. Mary Siphon is a critical link in the Reserved works, it consists of two riveted steel, 90-inch diameter pipes that convey water across the St. Mary River valley. The total length is approximately 3,200 feet. Major repairs have taken place in 1924, 1935, 1940, 1954, and 1986. In 1999, major leaks were detected in the pipes and seals around the outlet collars. The saturated hillside caused the pipes to slide down and buckle.

DNRC's Conservation and Resource Development Division helped by providing two grants totaling $311,000, and the Milk River irrigation districts contributed $200,000 for crucial repairs. This money funded the replacement of approximately 100 feet of the siphon and will keep the project running — for a little while.

USBR estimates rehabilitation of the St. Mary Division alone, will cost $100 million –nearly 1/6th of Reclamation's entire annual budget.

Complicating matters, bull trout, listed as a threatened species, exist in the project area. USBR studies indicate that St. Mary diversion facilities are causing canal entrainment and impeding fish passage. One solution, installing a fish screen and ladder, could cost irrigators $11 million. In the mean time, less expensive electronic fish barriers are being tested on the canal diversion.

Irrigators do not have the financial means to pay for the rehabilitation or modifications. Low value crops limit their ability to repay, and, if irrigators were the only possible source of funds, survival of

(Continued on Page 8)

Rapid Aerial Assesment Proposed for Milk River

By Dave Krause, NRCS

If you see a helicopter flying low along the Milk River corridor with a bunch of folks hanging out its doors, do not be alarmed. It is the NRCS conducting an aerial reconnaissance assessment of the Milk River on behalf of the Milk River International Alliance (MRIA). This assessment known as a Rapid Aerial Assessment (RAA) is planned for early this summer. The need for the assessment originated from concerns generated by the public at the 1999 "Know Your Watershed Workshop" in Havre. Since the Workshop, the MRIA has been working steadily to develop a plan that addresses resource concerns along the Milk River corridor. As with the development of any plan, one of the first questions asked is "What does the resource along the corridor look like today?". The Milk River flows approximately 700 miles from its headwaters to the confluence with the Missouri River. Trying to look at 700 miles of river is extremely difficult. It would take very large sums of money to assess resource conditions over such a long distance.

WHAT IS A RAA?

About six years ago the idea of an RAA came to life in Lewistown based on a similar need to assess a large stream corridor, in this case Big Spring Creek, with limited resources, and still obtain a quality product that is useful in watershed planning. The method uses a helicopter flying at a low level, approximately 300-500 feet above the stream, with trained resource personnel to record resource conditions. The assessment team consists of the pilot, two NRCS resource specialists, and one NRCS geographic information system (GIS) specialist. As the pilot flies over the stream or river, the resource specialists identify stream attributes that affect the function of the water body. The GIS specialist using global positioning system equipment and software to record stream attributes. Generally, the assessment team can cover about 100-150 miles of stream per day depending on how much information is recorded. Technological advances allow the assessment team to use video linked to the global positioning system to display the information. In Montana, numerous streams and rivers have been assessed using the RAA process including the Teton River, the Yellowstone River, the Redwater River, Big Spring Creek, Flat Willow Creek, Big Sandy and Box Elder Creeks, and Sage Creek. The MRIA is proposing to assess about 450 miles of the Milk from Fresno Reservoir to the mouth near Nashua.

WHAT IS THE RAA USED FOR?

The RAA is used in the "first phase" of watershed planning. It provides the planning group, in this case MRIA, with a large-scale overview of the river corridor and helps them prioritize future planning, technical, and funding needs. It will allow the MRIA to bring resource information to basin residents regarding the condition of the Milk River.

WHAT IS HAPPENING WITH THE MILK RIVER RAA?

The MRIA, with help from the NRCS, has been conducting informational meetings over the last couple of months about the proposal with groups such as the Joint Board of Control, the Fort Belknap Tribes, and local Conservation Districts. Although funding has been secured through several grants, support from local folks is critical. Without this support, the project will not move forward. Assuming local support is received, the actual flight will be conducted in early June. This part of the project should take about a week. Once the flights are completed, NRCS personnel will analyze the information and prepare written and visual materials for public review. The Alliance plans to host several public meetings within the project area this fall to provide the public an opportunity to review and comment on the data.

For more information, questions, or concerns about the Rapid Aerial Assessment contact your local Conservation District office, Jim Thompson, MRIA Coordinator, at (406) 367-5405, or Dale Krause, NRCS, at (406) 622-5627 ext. 117. ✓

Did You Know?

- Of 95.3 million acres in Montana, 10 percent (9.65 million acres) lie in the Milk River Basin.
- According to the 1990 census, 4.75 percent of Montana's population (37,933) was in the Milk River Basin.
- According to the 2000 census, 4.17 percent of Montana's population (36,965) was in the Milk River Basin.
- Of the 2.5 million head of cattle in Montana, 250,000 (10 percent) are in the Milk River Basin.
- Of the state's 1,455,000 irrigated acres, 8.5 percent (125,000) are irrigated from the Milk River.

A damaged section of the St. Mary siphon on display in Chinook with a map of the Milk River and basin. The pipe will be on display throughout the basin to help raise awareness of the importance of the St. Mary water to the basin. The pipe is currently on display in Havre on the southside of the City Hall complex.

Jim Thompson, coordinator for the Milk River International Alliance speaks to members at its January meeting.

- 2,590,000 tons of irrigated hay is produced annually in Montana, 259,000 tons (10 per cent) is produced in the Milk River Basin.
- On average, the St. Mary Canal delivers enough water to fill Fresno Reservoir one and a half times.
- In dry years, such as 2001, St. Mary water accounts for more than 95 percent of the flows in the Milk River.

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(Using St. Mary Continued from Page 5)

the St. Mary Project would probably be in question. The economy of the hi-line was built around this stable water supply, and there are 38,000 people living in the Montana portion of the Milk basin. It is likely that the project's economic and social values (ironically, sometimes at odds with irrigation) will ensure its survival.

In addition to the huge monetary costs, securing future water supplies from the St. Mary will involve complex political and legal considerations.

Among other provisions of a reserved water rights compact, 645 cfs from the natural flow of the Milk River is allocated to the Gros Ventre and Assiniboine Tribes of the Fort Belknap Reservation.

Most of the St. Mary facilities are within the Blackfeet Indian Reservation. No compact has yet been negotiated with the Blackfeet Tribe to quantify their reserved water rights.

The Canadians have not yet developed their share of the Milk River under the Boundary Waters Treaty of 1909. During the irrigation season, Canada is allocated one-quarter of Milk River's natural flows below 666 cfs, and flows above 666 cfs are divided equally. Flows are evenly divided between the two countries throughout the rest of the year.

With all of the anticipated expenses, political and jurisdictional issues, and peripherals regarding the St. Mary, the future holds many uncertainties. The Milk River Project Joint Board of Control (JBC) will have a major influence on the project's destiny. The JBC, which was organized in 1999, consists of representatives of the eight Milk River Project irrigation districts (Fort Belknap, Malta, Glasgow, Alfalfa Valley, Harlem, Zurich, Paradise, and Dodson Irrigation Districts). Who will pay, how much, and when, will be shaped by the levels of the JBC's leadership and solidarity.

Everyone agrees: Saint Mary must be fixed. To get there, it will take a well-coordinated and cooperative basin-wide planning effort from all water use sectors to ensure the project's continued successful operation.

The Pueblo Indians settled along the Rio Grande around 700 years ago and built irrigation ditches called "acequias." Some of those ancient acequias are still in use today. Maybe in the year 2602, when the St. Mary diversion facilities are 700 years old, people will talk of the ancient ones who built St. Mary acequias still in use today.

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